

Support for Amendment:

Claims 1-7 and 9-13 are currently pending. Claims 1-7, 9 and 11-13 have been amended. Claim 8 has been canceled. Claim 10 has been previously presented.

Claim 1 has been amended to include indentations for each element and to replace "granules, objects or the like" with "granules." Claim 1 has also been amended to remove "or the like" and the reference numerals. Claim 1 has also been amended to replace "and that the cylinder is rotated with such a high speed that" with "so that, when the cylinder is rotated,". In addition, the following has been included: "wherein an opening is furnished in the bottom of each pocket, which opening is small enough not to let the granules through, each pocket being adapted to capture and hold the granule and having a form in the area of the opening that facilitates positioning of the granule to fully cover the opening." Support for this amendment is provided in claim 8 of the originally filed application. Claim 1 has been amended to include "a timer used to control the position of each pocket in relation to the detecting means and the ejecting means." Support for this amendment is provided in claim 9 of the originally filed application.

Claim 2 has been amended to remove "or the like" and the reference numerals.

Claim 3 has been amended to replace "and/or" with "or" and to remove the reference numerals.

Claim 4 has been amended to remove "a."

Claim 5 has been amended to replace "and/or" with "or" and to remove the reference numerals.

Claim 6 has been amended to remove the reference numerals. Claim 6 has been amended to replace "that" with "wherein," "the" with "a," and "or that the ejecting means has the form of" with "and." In addition, claim 6 has been amended to remove "or the like; that the ejecting means has the form of" and to include "one of."

Claim 7 has been amended to replace "objects or the like" with "granules," "objects" with "granules," and "and/or" with "or." In addition, the reference numerals have been removed from claim 7.

Claim 8 has been canceled.

Claim 9 has been amended to include "wherein." Claim 9 has been amended to remove "further comprising a timer, used to control the position of each pocket (3) and/or object (9) in relation to the detecting and ejecting means; and/or that."

Claim 11 has been amended to remove the reference numerals.

Claim 12 has been amended to include indentations for each step and to replace "Method" with "A method," "wherein" with "separating," "that" with "actively ejecting," "and that" with "wherein," and "objects" with "granules." Claim 12 has also been amended to remove "grains etc.," "are separated," and "is actively ejected." Claim 12 has been amended to include "the method comprising;" and "a". Claim 12 has been amended to include "and well-defined" which is supported by paragraph [0062] of the published application. Claim 12 has been amended to include "synchronizing the position of each granule with a position of a detecting means and an ejecting means using a timer; and," which is supported by paragraph [0042] of the published application. The reference numerals have also been removed from claim 12.

Claim 13 has been amended to remove "etc."

REMARKS

Objections to Abstract

In the Office Action dated September 27, 2007, the Abstract was objected to for improper language. As the Abstract has been amended, withdrawal of this objection is requested.

Objections to the Claims

In the Office Action, the form of the claims was objected to as not having proper line indentations for elements or steps. In addition, claim 12 did not recite "A method" but only "Method." As these objections have been addressed in the claim amendments, withdrawal of this objection is requested.

35 U.S.C. § 112 Rejection

In the Office Action, claims 1-12 were rejected under 35 U.S.C. § 112, second paragraph for the inclusion of phrases/terms "or the like," "granules etc.," "etc.," and "and/or." As the claims have been amended to remove these phrases/terms, withdrawal of the § 112 rejections of claims 1-12 is requested.

35 U.S.C. § 102 Rejection

In the Office Action, claims 1-3, 7, 8 and 11 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,096,991 (Stone et al.). This rejection is traversed.

Claim 1 is directed to a sorting device, and includes a cylinder having a number of pockets with each pocket being adapted to capture and hold a granule. In operation, the pockets pass a detecting means that is used to record the quality of a single granule. See the published application at paragraph [0017]. While Stone et al. disclose a drum 12 having an inner surface 22 on which a monolayer 49 of material is disposed, Stone et al. do not disclose a cylinder having a number of pockets with each pocket being adapted to capture and hold a granule. See Stone et al. at col. 3, lines 58-60.

As recognized in the Office Action, Stone et al. disclose a plurality of apertures or slots 50 formed in a wall of the drum 12. See Stone et al. at col. 3, lines 49-50. However, none of the slots 50 of Stone et al. capture and hold a granule as recited in claim 1. Rather, the slots 50 disclosed by Stone et al. merely provide a path through which water or air is directed to displace particles that are adhered to the inner surface of the drum 12. See Stone et al. at col. 4, lines 9-13. Therefore, it is asserted that Stone et al. do not disclose pockets adapted to capture and hold the granule as recited in claim 1.

Claim 1 provides for the presence of an opening in each pocket. While Stone et al. disclose the plurality of apertures or slots *formed in the wall* of the drum, Stone et al. do not disclose an opening *in each pocket*.

Claim 1 provides for the presence of a timer to control the position of each pocket in relation to the detecting means and the ejecting means. Stone et al. do not appear to disclose a sorting system having a timer.

As Stone et al. do not disclose every element of claim 1, Stone et al. do not anticipate claim 1. Therefore, withdrawal of the § 102(b) rejection of claim 1 is requested.

As claims 2, 3, 7, 8 and 11 are dependent on and further limit claim 1, it is asserted that Stone et al. do not anticipate claims 2, 3, 7, 8 and 11. Therefore, withdrawal of the § 102(b) rejection of claims 2, 3, 7, 8 and 11 is requested.

35 U.S.C. § 103 Rejection

In the Office Action, claims 1-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,096,991 (Stone et al.) in view of U.S. Pat. No. 4,720,473 (Welch et al.) and further in view of U.S. Pat. No. 6,497,324 (Doak et al.). This rejection is traversed.

Claim 1 provides for the presence of a cylinder having a number of pockets having an opening furnished in the bottom of each pocket with each pocket having a form in the area of the opening to facilitate that the granule is positioned to fully cover the opening. The pocket, the opening furnished in the bottom of each pocket, and the form of the pocket affect the ejection of

the granule from the pocket. For example, if the pocket did not include an opening and was not formed such that the granule fully covered the opening, the granule may not eject properly upon actuation of the ejection means.

The Office Action appears to contend that Welch et al. teach pockets and therefore it would have been obvious to one with ordinary skill in the art to modify the Stone et al. with this prior art teaching to arrive at the claimed invention. This contention is traversed. The pockets of the present application include an opening furnished in the bottom of each pocket. In addition, each pocket has a form in the area of the opening that facilitates positioning of the granule to fully cover the opening. Welch et al. do not teach an opening in the pocket because the device of Welch et al. relies on gravity to eject the contents of the pockets. As Stone et al. do not disclose pockets, openings furnished in the bottom of each pocket, or a pocket having a form in the area of the opening that facilitates positioning the granule to fully cover the opening, it is unclear how Welch et al. would suggest modifying Stone et al. to arrive at the claimed invention.

In addition, claim 1 further provides the presence of a timer to control the position of each pocket in relation to the detecting and ejecting means. The timer is used to determine the exact position of each pocket and correlate that position with the position of the detecting and ejecting means. See the published application at paragraph [0042]. This correlation allows the ejecting means to give an ejection impulse at the center of the opening of each pocket which aids in proper ejection of the granule.

The disclosures of Stone et al., Welch et al., and Doak et al. do not teach or suggest a timer. Rather, Stone et al. teach a method in which the actuation of the ejector is based on the detection of emissions of fluorescence from the particle. When the fluorescence from the particle is detected, control signals are fed by the detectors to the control module which actuates the ejector based on the rotational speed of the drum. See Stone et al. col. 4, lines 1-9.

Welch et al. do not provide any teaching of a detecting means, an ejecting means, or a timer. In Welch et al., the particles are ejected by gravity when the gravitational forces overcome the centrifugal forces applied by the rotation of the length separator apparatus. See Welch et al. at col. 6, lines 56-61.

As none of the cited references suggest the pocket, the opening furnished in the bottom of each pocket, the form of the pocket in the area of the opening and the timer, it is asserted that Stone et al., Welch et al., and Doak et al. do not teach or suggest the sorting device according to claim 1. Therefore, a prima facie case of obviousness has not been established with regard to claim 1. Withdrawal of the § 103(a) rejection of claim 1 is requested.

As claims 2-11 depend on and further limit claim 1, it is asserted that a prima facie case of obviousness has not been established with regard to these claims. Therefore, withdrawal of the § 103(a) rejection of claims 2-11 is requested.

Claim 12 provides for synchronizing the position of each granule with a position of a detecting means and an ejecting means using a timer. As provided above, Stone et al., Welch et al. and Doak et al. do not suggest the use of a timer to synchronize the position of each granule with a position of a detecting means and an ejecting means. Therefore, it is asserted that a prima facie case of obviousness has not been established with regard to claim 12. Withdrawal of the § 103(a) rejection of claim 12 is requested.

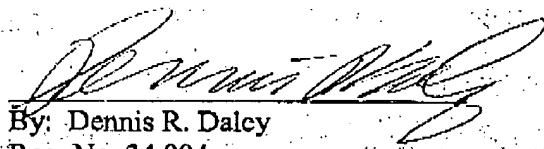
As claim 13 is dependent on and further limits claim 12, it is asserted that a prima facie case of obviousness has not been established with regard to claim 13. Withdrawal of the § 103(a) rejection of claim 13 is requested.

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Additionally, the Commissioner is hereby authorized to charge any additional fees as set forth in §§ 38 CFR 1.16 to 1.18 which may be required for entry of these papers or to credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,
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